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Listing first 45 summaries
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Copyright (c) 1993 - 2000 Compugen
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BIR1_HUMAN
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ZFP_IRV6
BIRA_MOUSE
IAP_GVCP
IAP2_DROME
IAP1_NPVAC
IAP1_NPVAC
IAP1_NSTB7
BIR5_HUMAN
BIR1_SCHPO
BIR6_HUMAN
BIR1_SCHPO
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BIR_CHICK
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BIR3_MOUSE
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2 homo sapien
4 schizosacch
5 homo sapien
6 homo sapien
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7 african swi
8 african swi
8 african swi
7 afratus norv
7 mus musculu
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african swi
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6 drosophila
6 homo sapien
4 mus musculu
2 chilo iride
5 mus musculu
6 cydia pomon
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	96149249; Pu , Roy N., T R., MCLean R., MCLean Sion of apop f IAP genes. 79:349-353(1 FROM N.A. etal liver. 96209843; Pu , Pakusch M and express to inhibitassociated tl. Acad. Sc	hei hei hei 127 128 127 128 127	ST (Rel. (Rel. (Rel. (Rel. (ALAP R (HIAP R (HIAP H (IAP H	118.6 118.2 17.8 17.8 117.8 117.4 16.9
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	aird A., s by tory	vertebrata; ; Hominidae; ; Hominidae; T.M., Goedde ns two novel oteins.";	' (D ·	
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S (IAP) INTERACTS D TRAF2) TO O THE TUMOR O THE SSUES. SSUES. OOD	ated ated fr	tomi; s related	APOPTOSIS G COMPLEX	schizosacch autographa homo sapien caenorhabdi saccharomyc mycobacteri helicobacte fugu rubrip clostridium streptomyce simian foam sulfolobus
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Best Local Similarity
Matches 55; Conser
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Pfam; PF00659; CARD; 1.

Pfam; PF00097; zf-C3HC4; 1.

SMART; SM00236; BIR; 3.

SMART; SM00114; CARD; 1.

SMART; SM00184; RING; 1.

SMART; SM00184; RING; 1.

PROSITE; PS01289; BIR_REPEAT_1; 3.

PROSITE; PS50143; BIR_REPEAT_2; 3.

PROSITE; PS50209; CARD; 1.
"The TNELL to baculoviral
                                                                                                                                                                 HUMAN

BIR2_HUMAN

STANDARD; PRT; 604 AA.

013489; 016628; 09UP46;

01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
20-AUG-2001 (Rel. 40, Last amnotation update)
BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1 (INHIBITOR OF APOPTOSIS PROTEIN 1) (HIAP-1) (HIAP-1) (C-IAP2) (TNFR2-TRAF SIGNALING COMPLEX PROTEIN 1) (IAP HOMOLOG C).

BIRC2 OR APII OR HOMOLOG C).

BIRC2 OR APII OR MOLOG C).
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SEQUENCE
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ZN_FING
                                                                                                                                 Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
REPEAT
                           SEQUENCE FROM N.A.
MEDLINE-96128127; PubMed-8548810;
Rothe M., Pan M.-G., Henzel W.J., Ayres T.M., G
"The TNFR2-TRAF signaling complex contains two
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Ew the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content
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                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY: BELONGS TO THE IAP FAMILY.
SIMILARITY: CONTAINS 3 BIR REPEATS.
SIMILARITY: CONTAINS 1 CARD DOMAIN.
SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       L49431; AAC41942.1; -. U45879; AAC50372.1; -. U37547; AAC50508.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IPR001370; BIR.
IPR001315; CARD.
IPR001841; Znf_ring.
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46 113
184 250
269 336
453 539
453 539
571 605
157 165
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157 157
308 308
414 414
514 514
518 AA; 69899 N
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               inhibitor of apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
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BIR 1.
BIR 2.
BIR 3.
CARD.
CARD.
S -> P (IN REF. 2)
C -> G (IN REF. 2)
Q -> L (IN REF. 2)
L -> W (IN REF. 2)
W; C1778D3280G3586D C+
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Pred. No. 1.5e-32;
Mismatches 0;
                                                                                                                                 Catarrhini;
                                                                                                                                               Craniata;
               proteins.
                                                                                                                                                 Vertebrata; Euteleostomi;
                                                                                                                                 Hominidae;
                                                  Goeddel D.V.;
                   novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CRC64;
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L outstation -
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BLOOD 93:3418-3431(1999).

C. -! FUNCTION: APOPTOTIC SUPPRESSOR. THE BIR MOTIFS REGION INTERACTS

C. -! FUNCTION: APOPTOTIC SUPPRESSOR. THE BIR MOTIFS REGION INTERACTS

C. WITH THE RECEPTOR ASSOCIATED FACTORS 1 AND 2 (TRAF1 AND TRAF2) TO

C. FORM AN HETEROMERIC COMPLEX, WHICH IS THEN RECRUITED TO THE TUMOR

C. HETEROMERIC COMPLEX, WHICH IS THEN RECRUITED TO THE TUMOR

C. -! SUBCELLULAR LOCATION: CYTOPLASMIC (POTENTIAL).

C. -! SUBCELLULAR LOCATION: CYTOPLASMIC (POTENTIAL).

C. -! SUBCELLULAR LOCATION: STOPLASMIC (POTENTIAL).

C. -! SUBCELLULAR LOCATION: STOPLASMIC (POTENTIAL).

C. -! SUBCELLULAR LOCATION: SAINLY SEEN IN LYMPHOID TISSUES,

INCLUDING SPELEN, THYMUS AND PERIPHERAL BLOOD LYMPHOCYTES.

C. -! SIMILARITY: BELONGS TO THE IAP FAMILY.

C. -! SIMILARITY: CONTAINS 3 BIR REPEATS.

C. -! SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
PROSITE: PSO1282; BIR_REPEAT_1; 3
PROSITE: PSO50143; BIR_REPEAT_2; 3
PROSITE: PSO5009; CARD; 1.
Apoptosis; Zinc-finger; Repeat.
REPEAT 29 96 BIR
REPEAT 169 235 BIR
REPEAT 255 322 BIR
REPEAT 255 322 BIR
REPEAT 255 322 CARD
2N_FING 557 591 RING
                                                                                                                                                                                                                                                                       InterPro; IPR001315; CARD.
InterPro; IPR001841; Znf_rii
Pfam; PP00653; BIR; 3.
Pfam; PF00619; CARD; 1.
Pfam; PF00097; zf-C3HC4; 1.
SMART; SM00238; CARD; 1.
SMART; SM00144; CARD; 1.
SMART; SM00184; RING; 1.
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SMART; SM
SMART; SM
PROSITE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=96209843; PubMed=8643514;
Uren A.G., Pakusch M., Hawkins C.J.,
"Cloning and expression of apoptosis
function to inhibit apoptosis and/or
receptor-associated factors.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; L49432; AAC41943.1; -. EMBL; U45878; AAC50371.1; -. EMBL; U37546; AAC50507.1; -. EMBL; AF070674; AAC83232.1; -.
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factor-alpha in vitro are expressed in atherosclerotic lesion
including inhibitor of apoptosis protein-1, stannin, and two
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Horrevoets A.J., Fontijn R.D.,
ten Cate J.W., Pannekoek H.;
"Vascular endothelial genes tha
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIM; 601712;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
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                                  BIR 1.
BIR 2.
BIR 3.
CARD.
      RING-TYPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            van Zonneveld A.J.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Usage by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tumor necrosis
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Matches 54
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                                                                                                                                                                      between
the Euro
                                                                                                                                                                                                                                         Genomics 46:495-503(1997).

IF FUNCTION: APOPTOTIC SUPPRESSOR. THE BIR MOTIFS REGION INTERACTS HINTOTICS. APOPTOTIC SUPPRESSOR. THE BIR MOTIFS REGION INTERACTS FORM AN HETEROMERIC COMPLEX, WHICH IS THEN RECRUITED TO THE TUMC NECROSIS FACTOR RECEPTOR 2 (TWRR2).

SUBCELLULAR LOCATION: CYTOPLASMIC (POTENTIAL).

TISSUE SPECIFICITY: EXPRESSED IN HEART, BRAIN, SPLEEN, LUNG, LIVER, SKELETAL MUSCLE, KIDNEY, AND TESTIS.

LIVER, SKELETAL MUSCLE, KIDNEY, AND TESTIS.

SIMILARITY: CONTAINS 3 DIR REPEATS.

SIMILARITY: CONTAINS 1 CARD DOMAIN.

SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         062210: 008864;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 3 (INHIBITOR OF APOPTOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOUSE
                     EMBL; L49433; AAC42078.
EMBL; U88909; AAC53532.
MGD; MGI:1197009; Birc3
                                                                                            modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                      use
                                                                                                                                                                                                             This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-98110590; PubMed-9441758;
Liston P., Lefebvre C., Fong W.G.
"Genomic characterization of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A., AND PARTIAL S
MEDLINE-96128127; PubMed-8548810;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEIN 2) (MIAP2) (MIAP-2).
BIRC3 OR API2 OR IAP2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Skeletal muscle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cell 83:1243-1252(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the M., Pan M. G., Henzel W.J., Ayres T.M., Goeddel D.V.; he TNFR2-TRAF signaling complex contains two novel proteins related baculoviral inhibitor of apoptosis proteins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CELYRMSTYSTFPAGVPVSERSLARAGFYYTGVNDKVKCFCCGLMLDNWKLGDSP
                                                                                                                                                                    S SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CELYRMSTYSTFPAGVPVSERSLARAGFYYTGVNDKVKCFCCGLMLDNWKRGDSP 82
                                     L49433; AAC42078.1;
U88909; AAC53532.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 genes.
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Rodentia;
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Sciurognathi;
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thi; Muridae; Murinae; Mus
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Pfam; PF00097; zf-C3HC4; 1
SMART; SM00238; BIR; 3.
SMART; SM00114; CARD; 1.
SMART; SM00184; RING; 1.
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SEQUENCE
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ZN_FING
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                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last annotation
20-AUG-2001 (Rel. 40, Last annotation
BACULOVIRAL IAP REPEAT-CONTAINING PROT
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008863;
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REPEAT
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                                                                                                                                                                                                                                                Genomics 46:495-503(1997).
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BIRC2 OR API1 OR IAP1.
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                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse)
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         EMBL; U88908; AAC53531.1; MGD; MGI:1197007; Birc2.
                                             entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                   "Genomic characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR001315; CARD.
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                                                                                                                                                                                                                                                                                                                         TISSUE=Skeletal muscle;
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                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                        and 2 genes."
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                                                                                                                                              FUNCTION: APOPTOTIC SUPPRESSOR. THE BIR MOTIFS REGION INTERACTS WITH THE RECEPTOR ASSOCIATED FACTORS 1 AND 2 (TRAF1 AND TRAF2) TOWN AN HETEROMERIC COMPLEX, WHICH IS THEN RECRUITED TO THE TUMC NECROSIS FACTOR RECEPTOR 2 (TNFR2) (BY SIMILARITY).

SUBCELLULAR LOCATION: CYTOPLASMIC (POTENTIAL).

SUMILARITY: BELONGS TO THE IAP FAMILY.

SIMILARITY: CONTAINS 3 BIR REPEATS.

SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
MGI:1197007; Bi
rPro; IPR001370;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 Similarity 94.5
52; Conservative
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PS50143; BIR_REPEAT_2;
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                                                                                                                                                                                                                                                                                    Fong W.G., Xuan J.Y., Korneluk R.G.; on of the mouse inhibitor of apoptosis
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Sciurognathi; Muridae; Murinae;
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E08969D93C6C610D CRC64;
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PROTEIN 2 (INHIBITOR
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No. 1.9e-30;
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Pfam; PF00619; CARD; 1.
Pfam; PF00097; Zf-C3HC4; 1.
SMART; SM00238; BIR; 3.
SMART; SM00114; CARD; 1.
SMART; SM00184; RING; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BIR_CHICK
Q90660;
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHICK
                                                                                                                                  DNA CELL BIO1. 15:981-988(1996).

11. FUNCTION: APODPTOTIC SUPPRESSOR (BY SIMILARITY).

11. SUBCELLULAR LOCATION: PREDOMINANTLY NUCLEAR.

11. TISSUE SPECIFICITY: CELLS OF THE T LYMPHOCYTE LINEAGE. FOUND BOTH CORTICAL AND MEDULLARY CELLS OF THE THYMUS.

12. DEVELOPMENTAL STAGE: HIGH LEVELS ARE INDUCED WITHIN 4-8 HOURS T-CELL ACTIVATION IN SPLEEN AND THYMUS.

13. TIMILARITY: BELONGS TO THE IAP FAMILY.

14. SIMILARITY: CONTAINS 3 BIR REPEATS.

15. SIMILARITY: CONTAINS 1 CARD DOWAIN.

16. SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
ZN_FING
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                               Pigby M.R., Kimpton W.G., York J
                                                                                                                                                                                                                                                                                                                 MEDLINE-97101112; PubMed-8945639;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-AUG-2001
INHIBITOR OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Apoptosis;
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS01282; BIR_REPEAT_1; PROSITE; PS50143; BIR_REPEAT_2; PROSITE; PS50209; CARD; 1.
 InterPro;
                                                                                                                                                                                                                                                                           lymphocytes.";
                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID-9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR001315; InterPro; IPR001841;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CELYRMSTYSTFPAGVPVSERSLARAGFYYTGVNDKVKCFCCGLMLDNWKLGDSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CELYRLSTYSAFPRGVPVSERSLARAGFYYTGANDKVKCFCCGLMLDNWKQGDSP
              U27466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21nc-finger; Repeat.
27 94 BIT
167 233 BIT
253 320 BIT
253 320 CAP
444 512 CAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Rel. 35, Created)
(Rel. 35, Last sequence update)
(Rel. 40, Last annotation update)
Rel. 40, Last annotation update)
Reportosis protein (IAP) (INHIBITOR OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
             AAB48118.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Znf_ring.
                                                                                                                                                                                                                                                                                                     York J.J.,
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BIR 2.
BIR 3.
CARD.
CARD.
RING-TYPE.
M; AD7F73E6849317D1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 284; DB Pred. No. 1.5e 1; Mismatches
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                                                                                                                                                                                                                                                                                           IAP
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.5e-29;
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                                                                                                                                                                                                                                                                                                                                                                                           Phasianinae;
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ALD DEPTH OF THE PROPERTY OF T
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BIR4_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00653; BIR; 3.
Pfam; PF00659; CARD; 1.
Pfam; PF00097; zf-C3HC4; 1
SMART; SM00238; BIR; 3.
SMART; SM00114; CARD; 1.
SMART; SM00114; CARD; 1.
SMART; SM00184; RING; 1.
PROSITE; PS01282; BIR_REPE
PROSITE; PS01282; BIR_REPE
PROSITE; PS01289; CARD; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BIR4_HUMAN 9
P98170; Q9NQ14;
01-OCT-1996 (Rel
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ZN_FING
SEQUENCE
                                                                                                                                                                                                                                          TISSUE-Fetal heart;
MEDILINE-96256286; PubMed-8654366;
Duckett C.S., Nava V.E., Gedrich R.W., Clem R.J., van Dongen J.L.,
Gilfillan M.C., Shiels H., Hardwick J.M., Thompson C.B.;
"A conserved family of cellular genes related to the baculovirus in gene and encoding apoptosis inhibitors.";
EMBO J. 15:2685-2694(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                           Liston P., Roy N., Tamai K., Lefebvre C., Baird Farahani R., McLean M., Ikeda J., Mackenzie A., "Suppression of apoptosis in mammalian cells by family of IAP genes."; Nature 379:349-353(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-OCT-1996 (Rel. 34, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 4 (INHIBITOR OF APOPT
PROTEIN 3) (X-LINKED INHIBITOR OF APOPTOSIS PROTEIN) (X-LINKED (IAP-LIKE PROTEIN) (HILP).
Nature 388:300-304(1997-1- FUNCTION: APOPTOTIC CASPASE-7.
                                                                                                   FUNCTION.
MEDLINE-97373959;
                                                                                                                                                                      Submitted
                                                                                                                                                                                                           SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
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InterPro;
                                                           Deveraux Q.L., Takahashi R., Salveso
"X-linked IAP is a direct inhibitor
                                                                                                                                                                                         Grafham
                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606,
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REPEAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'ISSUE*Fetal brain;
(EDLINE*96149249; PubMed*8552191;
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PS50143; BIR_REPEAT_2;
PS50209; CARD; 1.
                                                                                                                                                                 (APR-2000)
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IPR001841; Znf_1
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176
262
564
611 /
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(Rel. 34,
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                                                  PubMed-9230442;
Salvesen G.:
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Primates;
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81.5%;
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                                                                                                                                                                   the EMBL/GenBank/DDBJ databases
                      SUPPRESSOR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIR 1.
BIR 2.
BIR 3.
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                                                           G.S., Reed cell-death
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                                                                                 Reed J.C.
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                      OF CASPASE-3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S., Cherton-Horvat
Korneluk R.G.;
NAIP and a related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 611;
                                                           proteases.";
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BIR4_MOUSE
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Best Local S
Matches 28
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Q60989; 008865;
01_NOV-1997 (Rel. 35, Created)
01_NOV-1997 (Rel. 35, Last sequence update)
20_AUG-2001 (Rel. 40, Last annotation update)
BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 4 (INHIBITOR OF APOPTOSIS PROTEIN 3) (X-LINKED INHIBITOR OF APOPTOSIS PROTEIN 3) (X-LINKED INHIBITOR OF APOPTOSIS PROTEIN 3) (X-LINKED INHIBITOR OF APOPTOSIS PROTEIN) (X-LINKED IAP)
(IAP HOMOLOG A) (MIAP3) (MIAP-3).
BIRC4 OR API3 OR XIAP OR AIPA OR MIHA.
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CONFLICT
CONFLICT
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the European Bioinformatics Institute. There are no rest use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
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Pfam; PF00653; BIR; 3.
Pfam; PF00097; zf-C3HC4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; U45880; AAC50373.1; -. EMBL; U32974; AAC50518.1; -. EMBL; AL121601; CAB95312.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                   "Cloning and expression of apoptosis inhibitory function to inhibit apoptosis and/or bind tumor receptor associated factors.";
Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996)
                                                                                                    STRAIN-C57BL/6 X CBA; TISSUE-Liver; MEDLINE-96209843; PubMed-8643514;
                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                    Mus musculus (Mouse).
Finkarvota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Apoptosis;
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMART; SM00238; BIR; 3. SMART; SM00184; RING; 1.
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             SEQUENCE
                                                                                                                                                        NCBI_TaxID=10090
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                                                                                                                                                                                                                                                                                                                                                                                  26
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- SIMILARITY: 1
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SIMILARITY: CONTAINS 3 BIR REPEATS.
SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: CYTOPLASMIC. TISSUE SPECIFICITY: UBIQUITOUS, EX
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PS01282; BIR_REPEAT_1;
PS50143; BIR_REPEAT_2;
s; Zinc-finger; Repeat;
             FROM N.A
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26 93
163 230
265 330
450 484
162 162
423 423
497 AA; 56684 M
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c.,
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Korneluk R.G.,
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Pred. No. 2.9e
8; Mismatches
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S -> C (IN
Q -> P (IN
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BIR 2.
BIR 3.
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3.
Thiol
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.9e-13;
Mackenzie A.E.;
                                                                                         Vaux D.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 497;
                                                               necrosis
                                                                            protein
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                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
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Best Local Similarity
Matches 27; Conserv
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CONFLICT
                  SEQUENCE
Saito N.;
                                                                                                                                                                                                                                                                                                                                      BIR4_RAT
Q9R016;
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                                                                                                                                                                       20-AUG-2001 (Rel. 40, Created)
20-AUG-2001 (Rel. 40, Last sequence update)
20-AUG-2001 (Rel. 40, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 4 (INHIBITOR OF APOPTOSIS PROTEIN 3) (X-LINKED INHIBITOR OF APOPTOSIS PROTEIN) (X-LINKED IAP)
(IAP HOMOLOG A) (RIAP3) (RIAP-3).
BIRC4 OR API3 OR XIAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMART; SM00238; BIR; 3.
SMART; SM00184; RING; 1.
PROSITE; PS01282; BIR REPEAT 1;
PROSITE; PS50143; BIR_REPEAT_2;
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-!- FUNCTION: APOPTOT
                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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Pfam; PF00653; BIR; 3.
Pfam; PF00097; zf-C3HC4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U36842; AAC52594.1;
EMBL; U88990; AAB58376.1;
MGD; MGI:107572; Birc4.
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-- FUNCTION: APOPTOTIC SUPPRESSOR. INHIBITOR OF CASPASE-7 (BY SIMILARITY).
-- SUBCELLULAR LOCATION: CYTOPLASMIC (BY SIMILARITY: BELONGS TO THE IAP FAMILY.
-- SIMILARITY: CONTAINS 3 BIR REPEATS.
-- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
"Rattus
                                                                                   NCBI_TaxID=10116;
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                                                                                                                                                       Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26
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norvegicus X-linked inhibitor of apoptosis (riap3) mRNA.";
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BIR 2.
BIR 3.
                                                                                                        Craniata; Vertebrata; Sciurognathi; Muridae;
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OF CASPASE-3
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                                                                                                             Euteleostomi;
; Murinae; Rattus
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InterPro: IPR001841; Znf_ring
InterPro: IPR001841; Znf_ring
InterPro: IPR001841; Znf_ring
InterPro: IPR00184; I.
SMART; SM00238; BIR; 3.
SMART; SM00184; RING; 1.
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062640;
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ZN_FING
SEQUENCE
                                                                                                                                                                                                                  Stehlik C., de Martin R., Binder B.R., Lipp J.;

"Cytokine induced expression of porcine inhibitor of protein (lap) family member is regulated by NF kappa Biochem. Biophys. Res. Commun. 243:827-832(1998).

-- SIMILARITY: BELONGS TO THE IAP FAMILY.

-- SIMILARITY: CONTAINS 2 BIR REPEATS.

-- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                 the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-98162622; PubMed-9501011; Stehlik C., de Martin R., Binder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
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-!- FUNCTION: APOPTOTIC SUPPRESSOR. INHIBITOR OF CASPASE-3
CASPASE-7 (BY SIMILARITY).
-!- SUBCELLULAR LOCATION: CYTOPLASMIC (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE IAP FAMILY.
-!- SIMILARITY: CONTAINS 3 BIR REPEATS.
-!- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sus scrofa (Pig).
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REPEAT
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                                   SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation buropean Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
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Similarity 50.9%;
27; Conservative
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1 (Rel. 40, Last anno
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26 93 BI
163 230 BI
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56072 MW;
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Cetartiodactyla; Suina;
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Last annotation
APOPTOSIS.
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BIR 3.
RING-TYPE.
W; E250E3C77461A469 C
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ina; Suidae; Sus.
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Best Local S
Matches 25
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InterPro; IPR001315; CARD.
InterPro; IPR001841; Znf_ring.
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 2.
Pfam; PF00619; CARD; 1.
Pfam; PF00097; zf-C3HC4; 1.
SMART; SM00238; BIR; 2.
SMART; SM00114; CARD; 1.
SMART; SM00114; CARD; 1.
SMART; SM00184; RING; 1.
MGD: MGI:1858256; Birclg.
InterPro; IPR001370; BIR.
Pfam; PF00653; BIR; 3.
SMART; SM00238; BIR; 3.
SROSITE; PS01282; BIR_REPEAT_1; 2
PROSITE; PS50143; BIR_REPEAT_2; 3
Apoptosis; Repeat; Multigene family REPEAT 60 127
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20-AUG-2001
20-AUG-2001
20-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REPEAT
ZN_FING
SEQUENCE
                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                Endrizzi M.G., Hadinoto V., Growney J.D., "Genomic sequence analysis of the mouse N Genome Res. 10:1095-1102(2000).
                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE-20414747;
                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-AUG-2001 (Rel. 40, Created)
20-AUG-2001 (Rel. 40, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation updat
BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1
INHIBITORY PROTEIN 7).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                               EMBL; AF242433; AAF82749.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                        BIRC1G OR NAIP7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Apoptosis;
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; U79142; AAC39171.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93 REKTECHWPSSIPVHPEQLASAGEYYMGHSDDVKCFCCDGGLRCWESGDDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 RMSTYSTFPAGVPVSERSLARAGFYYTGVNDKVKCFCCGLMLDNWKLGDSP
                                                                                                                                                                                                                                                     SIMILARITY: CONTAINS 3 BIR REPEATS
                                                                                                                                                                                                                                                                                  FUNCTION: PREVENTS MOTOR-NEURON APOPTOSIS INDUCED BY A VARIETY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25;
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4 70 BIF
90 157 BIF
311 345 RIF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                       PubMed=10958627;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BIR_REPEAT_1;
                                                                                                                                                                                                                                                                                                                                                                                             Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45.6%;
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BIR 2.
RING-TYPE.
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Pred. No. 6.3e-11;
6; Mismatches 20
                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EB2268FA9A6190A4 CRC64;
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PROTEIN 1G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1402
                                                                                                                                                                                                                                                                                                           Naip gene array.
                                                                                                                                                                                                                                                                                                                          Miller W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (NEURONAL APOPTOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20;
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                                                                                                                                                                                                                                                                                                                                                                                             Euteleostomi;
Murinae; Mus
                                                                                                                                                                                                                                                                                                                        Dietrich W.
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 EMBL; AF135492; AAD56764.1; -.
EMBL; AF131203; AAD56760.1; -.
EMBL; U66326; AAC53974.1; -.
MGD; MGI:1298220; Bircle.
InterPro; IPR001370; BIR.
9fam; PF00653; BIR; 3.
SMART; SM00238; BIR; 3.
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REPEAT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE-99431676; PubMed-10501978;
Huang S., Scharf J.M., Growney J.D
"The mouse Naip gene cluster on Ch
functional transcripts.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           O9RO16; O9RO29; P81703; O09122; O09121;
20-AUG-2001 (Rel. 40, Created)
20-AUG-2001 (Rel. 40, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1E (NEURONAL APOPTOSIS
                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOUSE
                                                                                                                                                                                                                             Genomics 38:405-417(1996).
-!- FUNCTION: PREVENTS MOTOR-NEURON APOPTOSIS
                                                                                                                                                                                                                                                                                                                    STRAIN-129/SVJ;
MEDLINE-97131520; PubMed-8975718;
                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-99417674; PubMed-10486205;
Endrizzi M., Huang S., Scharf J.M., Kelter A.R.,
Kunkel L.M., Miller W., Dietrich W.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BIRCLE OR NAIP5 OR NAIP-RS3.
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                                                                                                  or send
                                                                                                                                                                                                                                                       exon 5.
                                                                                                                                                                                                                                                                                           Scharf J.M., Damron D., Fri
Kunkel L.M., Dietrich W.F.;
                                                                                                                                                                                                                                                                                                                                                                     Genomics
                                                                                                                                                                                                                                                                                                                                                                                 interval
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                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 82-168 FROM N.A.
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                                                                                                                                                                                                                   SIGNALS.
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                                                                                                                                                                                                                                                                the Lgnl critical interval and
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                                                                                                   s requires a license agreement (See http://www.isb-sib.ch/announce/
an email to license@isb-sib.ch).
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1402
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BIR
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Pred. No. 1
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                                                                                                                                                                                                                                                                                                                                                                                              of the mouse
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mosome 13
                                                                                                                                                                                                                                                                  spinal muscular atrophy lies dontains multiple copies of
                                                                                                                                                                                                                                                                                                      Bruno S.,
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.5e-09;
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                                                                                                                                                                                                                                                                                                                                                                                             human Lgn1/SMA
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CONFLICT
                                                                                                                                                                                              within th exon 5.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DIRE_MOUSE STANDARD, PRT; 1403 AA. 09J1B6; P81704; O09122; O09121; 20-AUG-2001 (Rel. 40, Created) 20-AUG-2001 (Rel. 40, Last sequence update) 20-AUG-2001 (Rel. 40, Last annotation update) BACULOVIRAL IAP REPEAT-CONTAINING PROTEIN 1F INHIBITORY PROTEIN 6).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
         use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                   Endrizzi M.G., Hadinoto V., Growney J.D., "Genomic sequence analysis of the mouse No Genome Res. 10:1095-1102(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Apoptosis;
REPEAT
                                                                                                     This
                                                                                                                                                               Genomics 38:405-417(1996).
-!- FUNCTION: PREVENTS MOTOR-NEURON APOPTOSIS
                                                                                                                                                                                                         Scharf J.M., Damron D., Frisella A.,
Kunkel L.M., Dietrich W.F.;
"The mouse region syntenic for human
within the Lgnl critical interval and
                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE-20414747; PubMed-10958627;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                       the
                                                                                                                                                                                                                                                                      STRAIN=129/SVJ;
MEDLINE=97131520; PubMed=8975718;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIRC1F OR NAIP6 OR NAIP-RS4.
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                                                                                                                                 SIGNALS.
-!- SIMILARITY: CONTAINS 3 BIR REPEATS
                                                                                                                                                                                                                                                                                                     SEQUENCE OF 82-168 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=10090;
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                                                                    s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EN European Bioinformatics Institute. There are no restricted to the swiss institute of the content of the co
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PS50143;
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BIR_REPEAT_2;
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Rodentia;
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BIR 3.
BIR 3.
BIR 3.
S -> R
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Pred. No. 1.5e
6; Mismatches
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                            (See http://www.isb-sib.ch/announce,
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.5e-09;
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P41437;
01-NOV-1995
01-NOV-1995
20-AUG-2001
                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformates and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=94187094; PubMed=8139034;
Birnbaum M.J., Clem R.J., Miller L.K.;
"An apoptosis-inhibiting gene from a nuclear polyhedrosis virus
encoding a polypeptide with Cys/His sequence motifs.";
J. Virol. 68:2521-2528(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00238; BIR; 3.
PROSITE; PS01282; BIR_REPEAT_1; 2.
PROSITE; PS50143; BIR_REPEAT_2; 3.
                                                    EMBL; L22564; AAB02610.1; -.
EMBL; U75930; AAC59034.1; -.
InterPro; IPR001370; BIR.
InterPro; IPR001841; Znf_rin
                                                                                                                                                                                                                            "The sequence of the Orgyia pseudotsugata multinucleocapsid polyhedrosis virus genome."; Virology 29:381-399(1997).
-I- FUNCTION: ACTS BY BLOCKING CELLULAR APOPTOSIS RATHER THA PURCHYING VIRAL STIMULATION OF APOPTOSIS.
-I- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                        Ahrens C.H., Russell Rohrmann G.F.;
                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE-97271300; PubMed-9126251;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Orgyła pseudotsugata multicapsid polyhedrosis virus (OPMNPV).
Viruses; dsDNA viruses, no RNA stage; Baculoviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1995 (Rel. 32,
01-NOV-1995 (Rel. 32,
20-AUG-2001 (Rel. 40,
APOPTOSIS INHIBITOR 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NPVOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Apoptosis;
REPEAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MGD; MGI:1298222; B1rc1f.
InterPro; IPR001370; BIR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleopolyhedrovirus.
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; PF00653; BIR; 2.
1; PF00097; zf-C3HC4; 1.
(T; SM00238; BIR; 2.
(T; SM00184; RING; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ELYRMSTYSTFPAGVPVSERSLARAGFYYTGVNDKVKCFCCGLMLDNWKLGDSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EELRMDMFKDWPQESPVGFEALVRAGFFYTGKKDIVRCFSCGGCLEKWAEGDDP
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U66327; AAC52975.1; -
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60 127 B
159 227 B
278 345 B
1403 AA; 159823 MW
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./e_family.
BIR 1.
BIR 2.
.5 BIR 3.
.159823 MW; C
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                                                       Znf_ring.
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Last annotation
(IAP-3).
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Pred. No. 2.1e-09
6; Mismatches 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
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Best Local
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Pterygota; Ne
Ephydroidea;
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REPEAT
REPEAT
ZN_FING
SEQUENCE
                                                                                                                                                                                                                                                                          Hay B.A., Wassarman D.A., Rubin G.M.;

"Drosophila homologs of baculovirus inhibitor of apoptosis proteins function to block cell death.";

Cell 83:1253-1262(1995).

-I- FUNCTION: APOPTOTIC SUPPRESSOR. OVEREXPRESSION SUPPRESSES RPR AID-DEPENDENT CELL DEATH IN THE EYE.
-I- SIMILARITY: DEPENDENT OF THE IAP FAMILY.
-I- SIMILARITY: CONTAINS 1 RING-TYPE ZINC FINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IAP1_DROME
Q24306;
       REPEAT
ZN_FING
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DROME
                                                                                     SMART;
SMART;
                                                                                                                                                                                                           use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no restricted the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                              TISSUE-Eye imaginal disk; MEDLINE-96128128; PubMed-8548811;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEIN)
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APOPTOSIS 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS01282; BIR_REPEAT_1; 2. PROSITE; PS50143; BIR_REPEAT_2; 2.
                                                                                                                     Pfam;
                                                                                                                              FlyBase; FBgn0003691; th.
InterPro; IPR001370; BIR.
InterPro; IPR001841; Znf_
                                                                                                                                                                                    entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                         Apoptosis;
REPEAT
                                                              PROSITE; PS01282; BIR_REPEAT_1; 2. PROSITE; PS50143; BIR_REPEAT_2; 2.
                                                                                                         Pfam; PF00097; zf-C3HC4; 1.
                                                                                                                                                                EMBL; L49440; AAC41609.1; -.
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                                                                                                                   PF00653; BIR;
                                                                                   SM00238; BIR; 2.
SM00184; RING; 1
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23; Conservative
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18 84
111 178
221 255
                                                                                                                                                                                                                                                                                                                                                                                                                                  Neoptera; Endopterygota; Dia; Drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                        melanogaster (Fruit fly).
Metazoa; Arthropoda; Tracheata;
                                          Zinc-finger;
44 110
        438
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(Rel. 35, Last sequence update)
(Rel. 40, Last annotation update)
INHIBITOR (INHIBITOR OF APOPTOSIS
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255 R
30076 MW;
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BIR 1.
BIR 2.
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        Ĭ,
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RING-TYPE.
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.2e-10;
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a; Brachycera; Muscomorpha;
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                                                                                                                                                                                                                                 restrictions
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ABL outstation -
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Query Match

41.48;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-Fetal brain;

MEDLINE-95112344; PubMed-7813013;

MEDLINE-95112344; PubMed-7813013;

ROY N., Mahadevan M.S., McLean M., Shutler G., Yaraghi Z.,

Farahini R., Baird S., Besner-Johnston A., Lefebvre C., Kang X.,

Salih M., Aubry H., Tamai K., Guan X., Ioannou P., Crawford T.O.,

de Jong P.J., Surh L., Ikeda J., Korneluk R.G., Mackenzie A.;

"The gene for neuronal apoptosis inhibitory protein is partially

deleted in individuals with spinal muscular atrophy.";

Cell 80:167-178(1995).
                                                                                                                                                                                MEDLINE=96149249; PubMed=8552191;
Liston P., Roy N., Tamai K., Lefebvre C., Baird
Farahani R., McLean M., Ikeda J., Mackenzie A.,
"Suppression of apoptosis in mammalian cells by
family of IAP genes.";
Nature 379:349-353(1996).
                                                                                                                                                                                                                                                                                                                                                  SEQUENCE OF 222-1403 FROM N.A. Jones K., Graves T., McPherson J.;
                                                                                                                                                                                                                                                                                                                                                                                                                  der Steege G., Draaijer:
Anzevino R., Velona I.,
Buys C.H.C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 386-623 FROM N.A. SEQUENCE OF 386-623 FROM N.A. der Steege G., Draaijers T.G., Granzevino R., Velona I., Brahe C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MacKenzie A.E.; "Sequence of a 131-kb region of 5q13.1 containing the spinal muscular atrophy candidate genes SMN and NAIP."; Genomics 48:121-127(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chen Q., Baird S.D., Mahadevan M., Besner-Johnston A., Farahani R., Xuan J.-Y., Kang X., Lefebvre C., Ikeda J.-E., Korneluk R.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A., AND REVISIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIRC1 OR NAIP.
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                                                                                                                                                                                                                                                                                    TISSUE-Liver;
                                                                                                                                                                                                                                                                                                                                    Submitted
                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (MAY-1995) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-98163755; PubMed-9503025;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                      FUNCTION
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DISEASE: MUTATED OR DELETED FORMS OF NAIP HAVE BEEN FOUND IN INDIVIDUALS WITH SPINAL MUSCULAR ATROPHY TYPE I (SMA TYPE 1). S
ARE FATAL AUTOSOMAL RECESSIVE DISORDERS SUBCLASSIFIED AS TYPE I (MERDNIG-HOFFMANN DISEASE), TYPE II (INTERMEDIATE FORM), AND TYPE II (MOLLARAT-KUGELBERG-WELANDER DISEASE) BASED UPON THE AGE OF ONSET AND CLINICAL SEVERITY. THESE NEURODEGENERATIVE DISORDERS
                                                                                                                      SIGNALS.
TISSUE SPECIFICITY: EXPRESSED IN MOTOR NEURONS, BUT
                                                                                                                                                                FUNCTION: PREVENTS MOTOR-NEURON APOPTOSIS INDUCED BY A VARIETY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ETARLRTFEAWPRNLKQKPHQLAEAGFFYTGVGDRVRCFSCGGGLMDWNDNDEP
                                                                                                                                                                                                                                                                                                                                  (JUN-1998) to the EMBL/GenBank/DDBJ databases
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                                                                                                                  FOUND IN LIVER AND
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8; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                 Grootscholten P.M.,
C., Scheffer H., van
                                                                                                                PLACENTA,
                                                                                                                                                                                                                                 ovre C., Baird S., Cherton-Horvat
Mackenzie A., Korneluk R.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROTEIN 1 (NEURONAL APOPTOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          No. 3.9e-09;
smatches 23;
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                                                                                                                                                                                                                Korneluk R.G.;
NAIP and a related
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; Homo.
                                                                                                                                    NOT IN SENSORY
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